



Quick Guide for Measles Specimen Collection and Testing

If measles is suspected, the local health department (LHD) or NJDOH can offer specimen collection guidance. Below is a one-page reference sheet. For more detailed guidance or information on test result interpretation, please refer to the Measles Laboratory Testing FAQs found at: <http://www.nj.gov/health/cd/measles/techinfo.shtml>

Specimen Collection

CDC recommends that a nasopharyngeal/throat swab and blood specimen be collected from all patients with clinical features compatible with measles. Urine specimens may also contain virus and, when feasible to do so, collection of both respiratory and urine specimens can increase the likelihood of detecting virus.

Nasopharyngeal or throat swab: the preferred specimen for reverse transcriptase polymerase chain reaction (RT-PCR) detection or culture.

- Collect swab as soon as possible after rash onset. Most successful when specimens are collected within 3 days of rash onset; however, clinical specimens should be obtained within 7 days, and not more than 10 days, after rash onset.
- Use synthetic (non-cotton) swabs. Brands include Dacron® and Copan. This is the same type of swab used for influenza PCR testing.
- Place swabs in 1-3 ml of standard, commercially available viral transport medium (VTM). If VTM is not available, use sterile isotonic solution (e.g. phosphate buffered saline) in a sterile urine collection container or a blood collection tube that contains no gels or other agents.
- Keep specimens cold (4°C) and ship using ice packs.

Serologic testing:

- Blood should be collected as soon as possible after rash onset.
- Collect 7-10 ml of blood in a red top or serum separator tube (red-speckled or gold).
- Keep specimens cold (4°C) and ship using ice packs.

Urine:

- Urine should be collected as soon as possible after rash onset.
- Collect 10-50 ml of urine in a sterile container.
- Keep specimens cold (4°C) and ship using ice packs.

Specimen Testing

- Each specimen must be clearly labelled with the patient's name, date of birth, and date of collection.
- Measles serologic testing (IgM/IgG) can be performed by commercial laboratories. However, when there is a high index of suspicion, the preferred laboratory for measles testing (serology, RT-PCR, culture) is CDC, sent through the NJDOH Public Health and Environmental Laboratory (PHEL).
- For specimens submitted to PHEL for testing at CDC:
 - Approval for submission to PHEL can be coordinated through the LHD. Once submission is approved, the LHD can also assist with coordination of transport to PHEL.
 - Any specimen submitted to PHEL must be accompanied by a NJDOH SRD-1 form (<http://web.doh.state.nj.us/apps2/forms/> - write "Attention: Virology for forwarding to CDC" on the form). Incorrectly labeled specimens submitted to PHEL will be rejected and discarded.

In accordance with N.J.A.C. 8:57, measles is an **immediately reportable** disease. Suspected or confirmed cases of measles infection should be reported to the LHD in the jurisdiction in which the patient resides.

Directory of LHDs in NJ available at: <http://www.state.nj.us/health/lh/directory/lhdselectcounty.shtml>

Directory of After Hour Emergency Contact Phone Numbers for LHDs in NJ available at: <http://nj.gov/health/lh/what.shtml>

If unable to reach the LHD, please contact the NJDOH at 609-826-5964 during regular business hours or 609-392-2020 off-hours.